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10/560,773	12/14/2005	Toshikazu Katsumata	403563/SOGA	5145

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EXAMINER
HO, HUY C

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>10/06/2008</u>.
2a) ☒ This action is FINAL.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-9</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-9</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>14 December 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
       1. ☒ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
             application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>12/14/2005</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 10/06/2008 have been fully considered but they are not persuasive

because the argued features, i.e., a wireless LAN system using CSMA method, dynamic adjustment is

made in communication quality control parameters for ordinary data and audio data transmissions from

a base station to terminals based on downstream and upstream communication traffic information,

read upon Beach in view of Wentink, as follows.

        Beach teaches wireless LAN carries mixed traffic of voice and data communications using

carrier sense multiple access CSMA system for providing management of voice and regular data

information transmission based on quality of service QoS, prioritization control parameters over uplinks

and downlinks from base stations to each terminal in real time (see Beach, paragraphs [8]-[12], [38],

[46], [48], [78]), thus Beach discloses a wireless LAN system using CSMA method, communication

quality control parameters for ordinary data and audio data transmissions from a base station to

terminals based on downstream and upstream communication traffic information. Wentik teaches

method and system for managing, ordering data having different priority levels in a wireless LAN

system and discloses quality control parameters are adjusted accordingly for mobile stations in the

network (see Wentik, paragraphs [2]-[4], [28]-[29], [38]-[39]), thus Wentik discloses quality control

parameters are adjusted for each terminals in the wireless LAN using CSMA method.

        As a result, the argued features were written such that they read upon the cited references.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

        (a) A patent may not be obtained though the invention is not identically disclosed or described
        as set forth in section 102 of this title, if the differences between the subject matter sought to
        be patented and the prior art are such that the subject matter as a whole would have been
        obvious at the time the invention was made to a person having ordinary skill in the art to which

said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

    1.   Determining the scope and contents of the prior art.
    2.   Ascertaining the differences between the prior art and the claims at issue.
    3.   Resolving the level of ordinary skill in the pertinent art.
    4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

5.   Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al. (2002/0054574) and further in view of Wentink (2003/0053469).

        Consider claim 1, (Currently Amended) Beach discloses a wireless local area network (LAN) communication system using a carrier sense multiple access (CSMA) method (see the abstract and section [78]), comprising:

        a base station (section [10]); and

        plural terminals (sections [8]-[10]), wherein the base station comprises:

        data classification means for classifying data to be transmitted to the terminals into audio data and terminal-basis ordinary data and generating downstream data communication traffic information (sections [10], [48]).

        queuing means for generating an ordinary data transmission queue and an audio data transmission queue by queuing the data classified by the data classification means (sections [49]-[51],

[56]-[58]),

communication quality control parameter setting means for setting communication quality control parameters respectively for the ordinary data transmission queue and the audio data transmission queue (sections [52], [59], [61], [78]),

a transmission and reception portion for transmitting data from the ordinary data transmission queue and from the audio data transmission queue according to the communication quality control parameters at a time of transmission (see [46], [48]-[49]),

reception data detection means for acquiring upstream communication traffic information from reception data received from each of the terminals (see [46], [48]-[49]), and

communication quality control parameter control means for ~~dynamically adjusting each of the communication quality control parameters in~~ controlling the communication quality control parameter setting means by dynamically adjusting, for each of the terminals, the communication quality control parameters, based on the downstream and upstream communication traffic information (sections [49]-[52], [56]-[58]).

Beach does not specifically show the communication quality control parameters are adjusted, however, it is noticeable that Beach discusses a LAN system using a CSMA technology for allocating prioritized data, where an access point takes into account of different time durations, i.e., the usage of different contention windows CWs, for voice and other data, for monitoring and transmitting information over channels (see section [78]). Wentink teaches system and method for data transmission with different levels of priorities, where Wentink teaches various QoS parameters being changed, computed and updated properly by an access point during a process of allocating resource for data transmission with different levels of priorities (see sections [38]-[44]), thus Wentink discloses the communication quality control parameters are adjusted.

Since Beach and Wentink teach system and method for data transmission with different degrees of priorities, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Beach and have the communication quality control

parameters are adjusted, taught by Wentink, to improve the system discussed by Beach (see sections [1]-[7]).

    Consider claim **2**, (Previously Presented) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 1, by further comprising a queuing weighting control means for controlling weighting in queuing performed by the queuing means, based on the downstream and upstream communication traffic information (**[49]-[50]**).

    Consider claim **3**, (Previously Presented) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 1, wherein the queuing means limits a length of a queue for each of the terminals and discards data overflowing the queue (**[74]**).

    Consider claim **4**, (Previously Presented) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 1, wherein:

    the base station further comprises a terminal communication quality control parameter control means for periodically generating, for each of the terminals, a beacon for adjusting the communication quality control parameters for data transmission in each of the terminals, based on the downstream and upstream communication traffic information (**sections [48]-[52], [56]-[58]**); and

    at least one of the terminals comprises (**see Wentink, sections [5], [22]-[24]**):

    classification means for classifying data to be transmitted to the base station into audio data and ordinary data (**see Wentink, sections [5], [22]-[24]**);

    communication quality control parameter setting means for setting communication quality control parameters respectively for the audio data and the ordinary data, the communication quality control parameters being respectively and dynamically adjusted through the beacon (**see Wentink, sections [38]-[44]**), , and

    a transmission and reception portion for transmitting the ordinary data and the audio data based on the communication quality control parameters at the time of transmission (see [46], [48]-[49]).

    Consider claim **5**, (Currently Amended) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 4, wherein the communication quality control

parameter control means and the terminal communication quality control parameter control means ~~of the at least one terminal~~ control delay time and a priority of the communication quality control parameters for the audio data always to be shortest and highest, respectively ([51]-[53], [56]-[58]).

Consider claim 6, (Previously Presented) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 4, wherein:

the base station further comprises a communication control means for creating an active terminal count table, which shows a transmission and reception state at each of the terminals, based on the downstream and upstream communication traffic information (sections [49], [58], [60]), and

the communication quality control parameter control means and the terminal communication quality control parameter control means control the communication quality control parameters for downstream and upstream transmission, based on the active terminal count table, such that downstream and upstream communications are equal (sections [49], [58], [60]).

Consider claim 7, (Previously Presented) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 6, wherein:

the base station further comprises a transmission rate coefficient table which shows predetermined transmission rate coefficients for transmission rates to equalize a transmission time in communications (sections [6], [75]-[77]); and

the transmission rate coefficients are taken into consideration when the communication quality control parameter control means and the terminal communication quality control parameter control means control the communication quality control parameters ([75]-[77]).

Consider claim 8, (Previously Presented) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 6, further comprising a queuing weighting control means for controlling weighting in queuing performed by the queuing means, based on the downstream and upstream communication traffic information, wherein, response to an instruction from an upper side of the base station, the terminal communication quality control parameter control means controls the communication quality control parameter control means in a terminal through the beacon, and the queuing weighting control means controls weighting in queuing performed by the queuing

means to control communication traffic to a particular terminal ([48]-[52], [56]-[58]).

Consider claim **9**, (Currently Amended) Beach, as modified by Wentink, further discloses the wireless LAN communication system according to claim 4, wherein the beacon generated by the terminal communication quality control parameter control means includes information for making a terminal that does not ~~including~~ include a communication quality control parameter control means incapable of transmitting data for a period of time in a beacon period ([48]-[52], [56]-[58]).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY C. HO whose telephone number is (571)270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alex V. Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call 800-786-9199 (IN

USA OR CANADA) or 571-272-1000.

/Huy C Ho/
Examiner, Art Unit 2617

/Alexander Eisen/

Supervisory Patent Examiner, Art Unit 2617